SESSION 2: ADDRESSING CLIMATE CHANGE CHALLENGES

PANEL 2.2: Monitoring and mitigation of the impact of climate change

Deputy Director, International Relations/ Director, Department of International Cooperation, State Atomic Energy Corporation ROSATOM

Marina Belyaeva is a leading Russian expert in the area of non-proliferation, export control, safeguards implementation and nuclear energy promotion. She manages a number of ROSATOM projects in the area of international cooperation, such as the promotion of nuclear technology on global markets, the strengthening of nuclear safety and non-proliferation regimes, and the active participation in international events and forums.
Nuclear power – a way to high quality of life and addressing climate change challenges

Ms. Marina Belyaeva,  
Director  
Department of International Cooperation  
State Atomic Energy Corporation “Rosatom”
According to WNA and IAEA Power Reactor Information System (PRIS)

30 countries operate NPPs;
16 countries construct reactors;
4 countries build their first NPPs;
12 countries are planning to develop national nuclear energy programmes
Nuclear Power Impact to Economy and Quality of Life

Each $1 invested in NPP earns:
$1,9 to local suppliers;
$4,3 to national GDP;
$1,4 of tax income

NPP construction provides 3000 jobs on the construction site and up to 10 000 jobs in the sphere of nuclear infrastructure

60-year life-cycle of an NPP with two VVER-1200 units increases GDP approximately by $40-60 bln
Centres of Nuclear Science and Technology (CNST)

CNST – is an innovative complex solution in the sphere of nuclear non-power applications development, which is designed in compliance with the needs of a specific country

Possible CNST master plan

CNST could be constructed in various modifications

1. RESEARCH REACTOR AND LABORATORIES
   Generation and application of neutrons and ionizing radiation

2. RADIATION MATERIAL SCIENCE COMPLEX
   Materials science research & development

3. RADIOBIOLOGY LABORATORY AND GREENHOUSE
   Agricultural research & radiobiological experiments

4. NUCLEAR MEDICINE CENTER
   Radiopharmaceuticals production, diagnostics, therapy

5. MULTIPURPOSE IRRADIATION CENTER
   Product and material sterilization, product irradiation
Share of Nuclear Generation in World Energy Production and its Impact on Climate
Nuclear Power Development Projections

GW(e) installed

- IAEA low
- IAEA high
- IEA new policies
- IEA sustainable development
- Goal of WNA Harmony Programme

2018: 0 GW(e) installed
2040: 600 GW(e) installed
2050: 1200 GW(e) installed

Programme for 2018, 2040, and 2050
THANK YOU FOR ATTENTION!